

ABSTRACT

A method and system for measuring the signal transmission time through a network link bounded by at least one echo canceller. The method generally includes the steps of determining a signal transmission time (tA) along a network path including the network link bounded by the echo canceller between a first endpoint and a second endpoint, transmitting a test signal from the first endpoint to the second endpoint through the network path, transmitting an echo signal which simulates the test signal from the second endpoint to the first endpoint through the network path, measuring a minimum time delay between transmission of the test signal and transmission of the echo signal which causes the echo canceller to cancel the echo signal and calculating the signal transmission time through the network link bounded by the echo canceller based on the measured minimum time delay and the determined network path signal transmission time (tA). Where the network link is bounded by two echo cancellers, the method further includes the steps of transmitting a second test signal from the second endpoint to the first endpoint through the network path, transmitting a second echo signal which simulates the second test signal from the first endpoint to the second endpoint through the network path, measuring a second minimum time delay between transmission of the second test signal and transmission of the second echo signal which causes the second echo canceller to cancel the second echo signal and calculating the delay through the network link bounded between the first and second echo cancellers based on both measured minimum time delays and the determined network path signal transmission time (tA).

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